

**EXPLORING**

AUGMENTED REALITY

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In September's edition of D&T Practice (Issue 3.2012) David Wooff and I wrote about how staff were working with trainees on the Design and Technology BSc Initial Teacher Training course, using the notion of 'Design Fiction' as a catalyst for their design work, to explore the effective employment of Technology Enhanced Learning (TEL) such as the use of QR Codes, Prezi and Blogs. The outcomes had a series of positive impacts, not only on the trainee teacher's attainment, motivation and engagement but where trainees had engaged in aspects of the TEL whilst on their teaching placements in schools the impact upon the student's attainment and progress.



The essential links to get you started is:
www.aurasma.com/

Delivery of the same module (SDT3101) to the present undergraduate cohort is currently underway but given the amount of interest from the previous article, and the exciting new developments that are emerging, we thought it may be of interest to share some of the very early findings with you now, rather than wait until the summer.

At the end of the previous article we mentioned 'augmented reality' which if you haven't heard of it is along the lines of the newspaper in the Harry Potter film, which comes to life to tell the story.

Augmented reality is like a QR Code, but rather than scanning a 'barcode' style code icon, augmented reality uses image recognition as its trigger.

As Rob explains "The potential of augmented reality for use within design and technology is huge, and using the 'Aurasma' app it is really easy to create your own". So whilst we are still exploring and developing our use of Blogs, Prezi and QR Codes, both for use at university and in the classroom where it counts, this articles main focus is to articulate the very early emergent findings of our work into 'augmented reality'.

As part of the developments in Higher Education and engaging trainees in shaping their own learning we sent two trainees from the cohort, John McGhee and Aiden Boal, to represent the University at the recent Augmented Reality in Education Conference, City of London University, (October 2012).

Their findings were presented to their peers and have now informed and begun to shape the remainder of the module, both in terms of delivery and also, we hope will be reflected in the trainee outcomes.

As Aiden and John explain "Attending the Augmented Reality (AR) in Education Conference was an excellent experience for us. Networking with University

lecturers gave us an insight into AR in education that we wouldn't have normally received in a classroom. It gave us lots of new ideas and the ability to see where our own university could use AR to both help students and to advertise itself better as a new modern avant-garde establishment. We returned from London full of new ideas and directions in which to push our projects and fellow students and we are looking forward to pushing the boundaries in schools when we are on placement later on in the year".

The effect amongst the group has been contagious and a number of trainees including Myles Hall, Marc Simpkin and Katie Holland have been experimenting with 'location auras', which use a location rather than a photographic image as the trigger.

Whilst this technology is very new, there are a number of 'apps' you can download to try out aspects of the software for yourself, however at the moment the leader seems to be 'Aurasma'. You can download their 'app' for free and also if you visit the website you can explore how to begin to create your own 'aura's'. The essential links to get you started is:
www.aurasma.com/

With 'Aurasma' it is so easy to create your own, as Rob demonstrates in this short clip where he uses Aurasma to create an instructional video for trainees on how to use our new laser cutter:
www.youtube.com/watch?feature=player_detailpage&v=DK-xhkq86l8

This is very early work, but we hope you will find it useful and that it gives you sufficient information to be able to begin to explore for yourselves the potential of this exciting new technology in your own classroom. Early indications from our initial trials in school are extremely encouraging, as Rob's daughter Jennifer has discovered.



Example of AR demonstration
from Rob Jones





If you would like to know more about Augmented reality then the TED talk by Matt Mills (June 2012) is really inspirational:
<http://www.youtube.com/watch?v=frrZbq2Lpwl>



Jennifer, a first year Primary Trainee PGCE trainee teacher (also at Edge Hill), is currently on her initial teaching placement and building upon work undertaken by her secondary peers has been exploring how she can use this emergent technology to enhance learning in her classroom to great effect. As Jennifer explains "The class have been exploring the Great Fire of London where we engaged the children through a design and make activity where they created individual models which we combined together to form the City of London. Having seen the work which is currently being undertaken by students in Secondary Education, using a picture of Samuel Pepys as the trigger image I was able to link this to a short video. So when the children view the display with a smart phone or tablet device the image comes to life and talks to them about the topic which helps to consolidate their learning."

The next stage of development for the trainee's is to complete their work for this module and prepare for our first augmented reality exhibition, but also to prepare and explore further how TEL can be used successfully to positively impact and enhance the work they undertake in the classroom, whilst on their final teaching placements in the New Year.

Ideas our trainees are already working on are supporting the development of resources for differentiation, particularly EAL and subject specific phonics, instructional videos, homework tasks and Health and Safety. ■

Example of Aurasma tracker image

